

Abstract of the Disclosure

[0039] A method for cleaning a process chamber in such a manner that chamber-cleaning chemicals or agents are incapable of remaining in the chamber after cleaning and chemically interfering with semiconductor fabrication or other processes subsequently carried out in the chamber. The method includes providing a repellant coating layer having a hydrophobic or hydrophilic polarity on the interior surfaces of a process chamber and using a cleaning agent having a polarity opposite that of the repellant coating layer to clean the chamber. Accordingly, the cleaning agent removes post-processing chemical residues from the interior chamber walls and other surfaces and is incapable of adhering to the surfaces and remaining in the chamber upon commencement of a subsequent process carried out in the chamber.